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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,456	01/27/2004	Steven T. Fink	247394US6 YA	8693

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EXAMINER

XU, LING X

ART UNIT PAPER NUMBER

1775

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,456

Applicant(s)

FINK, STEVEN T.

Examiner

Ling X. Xu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 20-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takebayashi (JP-2002110547) in view of O'Donnell et al. (US 2002/0086501).

Takebayashi discloses a bolt comprising an enlarged head, a mating section and a plasma resistant coating made of aluminum and ceramics with plasma resistance (embodiment [0021] and figures). The plasma resistance coating only covers portion of the bolt (see fig. 1).

It is noted that claim 16 is a product-by-process claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps (MPEP 2113). “[E]ven though product – by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 227 USPQ 964, 966.

With respect to claim 17, since the enlarged head is coated with plasma resistant coating, the enlarged head is resistant to plasma etching.

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Takebayashi does not disclose that the surface of the bolt has an anodization layer under the plasma resistant coating.

O'Donnell teaches that metal components such as the fasteners that are exposed to plasma may be coated corrosion resistant coating (page 2, [0020] and page 3, [0025]) to provide high purity and corrosion resistance and increase the service life of the components (page 2, [0012]). O'Donnell also teaches that it is particularly desirable to roughen the substrate surface of the metal components, anodized the substrate surface prior to application of any of the desired corrosion resistance coatings (page 3, [0026]).

Therefore, it would have been obvious to one of ordinary skill in the art to provide an plasma corrosion resistance coatings including an anodization layer under the plasma corrosion resistant coating, as taught by O'Donnell, on Takebayashi's fasteners in order to provide the fasteners with high purity and plasma corrosion resistance and increased the service life.

2. Claims 2-6 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takebayashi in view of O'Donnell, as applied to claim 1 above, and further in view of Tsukatani et al. (US 6,576,354).

As stated above, Takebayashi and O'Donnell disclose the same fastener as recited in claim 1

Takebayashi and O'Donnell do not disclose the coating composition as recited in claims 2-6.

Tsukatani teaches the thermal spray coating consists of oxide of rare earth element and another element such as aluminum. The rare earth element includes oxides of yttrium, cerium,

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dysprosium and Europium (col. 4, lines 10-25). The coating has very desirable properties of high heat resistance, abrasion resistant and corrosion resistance as well as in respect of uniformity of the coating layer and adhesion of the coating layer to the substrate surface (col. 3, lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art to use the coating taught by Tsukatani on Takebayashi and O'Donnell's fastener in order to obtain coating with high heat resistance, abrasion resistant and corrosion resistance as well as in respect of uniformity of the coating layer and adhesion of the coating layer to the substrate surface.

With respect to claims 18-19, since the thickness of the coating can be uniform or variable, which indicates that the thickness of the coating is not critical. The claims do not defined which surface is the first specified surface, accordingly, any surface would meet the limitation of "a first specified surface."

Accordingly, it would have been obvious to one of ordinary skill in the art to apply coating with uniform or variable thickness on the fastener. One skilled in the art would have been able to determine the thickness of the coating of being uniform or variable based on the requirement of the applications of the fastener.

3. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takebayashi and O'Donnell, as applied to claim 1 above, and further in view of the same reference.

As stated above, Takebayashi and O'Donnell disclose the same fastener as recited in claim 1.

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Takebayashi and O'Donnell do not disclose the various shapes of the bolt as recited in claims 7-15 and 18-19. However, the shape of the bolt is a matter of a choice depending on the requirement of the applications of the fastener, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed was significant, *see* MPEP 2144.04.

Therefore, it would have been obvious to one of ordinary skill in the art to make and use the fastener disclosed by Takebayashi in various shapes depends on the requirement of various applications of the fastener.

Response to Arguments

4. Applicant's arguments filed on 3/29/2006 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling X. Xu whose telephone number is 571-272-1546. The examiner can normally be reached on 8:00 - 4:30 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer C. McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ling X. Xu
Primary Examiner
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